### Nontechnical Soils Descriptions AGR (Agronomic)

Soil	Categ	Descrip	Non Technical Descriptions for	Soil Name	Capability
Map Unit	ory	tion Number	Kanawha County, West Virginia		Class
AgB	AGR	002B	This soil is suited to cultivated crops and to hay and pasture. The hazard of erosion, which is moderate in unprotected areas, is a management concern. If this soil is cultivated, using a conservation tillage system, farming on the contour, using a crop sequence that includes hay, and returning crop residue to the soil help to control erosion and to maintain fertility and tilth. If this soil is used for pasture, the major management needs include proper stocking rates to maintain desirable grasses and legumes and rotational grazing.	Allegheny loam, shale substratum, 3 to 8 percent slopes	IIe
AgB	GSG	AL3	AL3—Acid Loams—Moderately deep, deep, and very deep moderately well and well drained with low natural fertility. Moderate to high soil moisture holding capacity and pH is normally less than 5.3. Slope ranges from 0 to 25 percent.  Annual precipitation is 41 to 50 inches.	Allegheny loam, shale substratum, 3 to 8 percent slopes	IIe
AgB	SOI	002	These Allegheny soils are deep and well drained soils on old stream terraces. These soils have a medium to coarse textured surface and medium to moderately coarse textured subsoil, through which water moves at a moderate rate (estimated permeability .6 to 2.0 inches per hour). These soils are under laid by finer textured shale bedrock that may serve as a layer slowing down water impedance in the substrata. These soils are underlain by		

### Nontechnical Soils Descriptions AGR (Agronomic)

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			bedrock or other alluvial		
			sediments, usually at depths		
			greater than 4 feet.		
			Natural fertility is low		
			and available water capacity		
			is high.		
AgB	URB	002B	This soil has few, if any,		
			limitations for community		
			development.		
AgB	WSD	002B	This soil has high potential		
			for trees. Erosion on		
			logging roads and skid		
			trails is a management		
			concern, but it can be		
			reduced by placing the roads		
			and trails on the contour.		
AgC	AGR	002C	This soil is suited to	Allegheny loam,	IIIe
-			cultivated crops and to hay	shale substratum, 8	
			and pasture. The hazard of	to 15 percent slopes	
			erosion, which is severe in		
			unprotected areas, is a		
			management concern. Using a		
			conservation tillage system,		
			growing crops in contour		
			strips, using a crop		
			sequence that includes hay,		
			and returning crop residue		
			to the soil help to control		
			erosion and to maintain		
			fertility and tilth. If		
			this soil is used for		
			pasture, the major		
			management needs include		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes and rotational		
			grazing.		
AgC	GSG	AL3	AL3—Acid Loams—Moderately	Allegheny loam,	IIIe
			deep, deep, and very deep	shale substratum, 8	
			moderately well and well	to 15 percent slopes	
]			drained with low natural		
			fertility. Moderate to high		
			soil moisture holding		
			capacity and pH is normally		
			less than 5.3. Slope ranges		
			from 0 to 25 percent.		
			Annual precipitation is 41		
			to 50 inches.		
AgC	SOI	002	These Allegheny soils are		
-			deep and well drained soils		
			on old stream terraces.		
<u> </u>		1		L	l

			These soils have a medium to		
			coarse textured surface and		
			medium to moderately coarse		
			textured subsoil, through		
			which water moves at a		
			moderate rate (estimated		
			permeability .6 to 2.0		
			inches per hour). These		
			soils are under laid by		
			finer textured shale bedrock		
			that may serve as a layer		
			slowing down water impedance		
			in the substrata. These		
			soils are underlain by		
			bedrock or other alluvial		
			sediments, usually at depths		
			greater than 4 feet. Natural fertility is low		
			_		
			and available water capacity		
1 0		0000	is high.		
AgC	URB	002C	Slope is the main limitation		
			of this soil for community		
			development.		
AgC	WSD	002C	This soil has high potential		
			for trees. Erosion on		
			logging roads and skid		
			trails is a management		
			concern, but it can be		
			reduced by placing the roads		
			and trails on the contour.		
CaC	AGR	002C	This soil is suited to	Clymer loam, 10 to	IIIe
			cultivated crops and to hay	20 percent slopes	
			and pasture. The hazard of		
			erosion, which is severe in		
			unprotected areas, is a		
			management concern. Using a		
			conservation tillage system,		
			growing crops in contour		
			strips, using a crop		
			sequence that includes hay,		
			and returning crop residue		
			to the soil help to control		
			erosion and to maintain		
			fertility and tilth. If		
			this soil is used for		
			pasture, the major		
			management needs include		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes and rotational		
			grazing.		
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CaC	GSG	AL3	AL3—Acid Loams—Moderately	Clymer loam, 10 to	IIIe
			deep, deep, and very deep	20 percent slopes	
			moderately well and well		
			drained with low natural		
			fertility. Moderate to high		
			soil moisture holding		
			capacity and pH is normally		
			less than 5.3. Slope ranges		
			from 0 to 25 percent.		
			Annual precipitation is 41		
			to 50 inches.		
CaC	SOI	001	These Clymer soils are deep		
			well drained soil found on		
			uplands. Estimated		
			permeability is moderate		
			(0.6 to 2.0 inches per		
			hour). These soils have a		
			medium textured surface and		
			subsurface. This soil is		
			underlain by bedrock at		
			depths of 40 to 60 inches.		
			Natural fertility is		
			moderate and available water		
			capacity is moderate to		
			high.		
CaC	URB	002C	Slope is the main limitation		
Cac	OKB	0020	<u> </u>		
			of this soil for community		
			development.		
CDD	AGR	109D	These soils have limited	Clymer-Dekalb	IVe
			suitability for cultivated	complex, moderately	
			crops and are better suited	steep	
			to hay and pasture. The		
			hazard of erosion, which is		
			severe in unprotected areas,		
			is a major management		
			concern. Using a		
			1		
			conservation tillage system,		
			growing crops in contour		
			strips, using a crop		
			sequence that includes hay,		
			and returning crop residue		
			to the soil are practices		
1		1		1	ĺ
1			that help to control erosion		
			that help to control erosion and to maintain fertility		
			and to maintain fertility		
			and to maintain fertility and tilth. If these soils		
			and to maintain fertility and tilth. If these soils are used for pasture, the		
			and to maintain fertility and tilth. If these soils are used for pasture, the major management needs		
			and to maintain fertility and tilth. If these soils are used for pasture, the major management needs include proper stocking		
			and to maintain fertility and tilth. If these soils are used for pasture, the major management needs include proper stocking rates to maintain desirable		
			and to maintain fertility and tilth. If these soils are used for pasture, the major management needs include proper stocking		
			and to maintain fertility and tilth. If these soils are used for pasture, the major management needs include proper stocking rates to maintain desirable		

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CDD	GSG	AL3	AL3—Acid Loams—Moderately	Clymer-Dekalb	IVe
			deep, deep, and very deep	complex, moderately	
			moderately well and well	steep	
			drained with low natural		
			fertility. Moderate to high		
			soil moisture holding		
			capacity and pH is normally		
			less than 5.3. Slope ranges		
			from 0 to 25 percent.		
			Annual precipitation is 41		
			to 50 inches.		
CDD	SOI	004	This Clymer-Dekalb complex		
			consists of Clymer and		
			Dekalb soils which are		
			intermixed in such an		
			intricate pattern that they		
			cannot be separated in		
			mapping at this scale.		
			Clymer soils are deep, well		
			drained soils found on		
			upland ridges and side		
			slopes. Estimated		
			permeability is moderate		
			(0.6 to 2.0 inches per		
			hour). These soils have a		
			medium textured surface and		
			subsurface. This soil is		
			underlain by siltstone or		
			sandstone bedrock at depths		
			of 40 to 60 inches. Natural		
			fertility of the Clymer soil		
			is moderate and available		
			water capacity is moderate		
			to high. Dekalb soils are		
			moderately deep, well		
			drained soils on uplands.		
			They have moderately coarse		
			textured surface layers and		
			moderately coarse to medium		
			textured subsoils. The		
			subsoil has over 35%		
			sandstone fragments. The		
			subsoil has moderately rapid		
			(estimated 2.0 to 6.0 inches		
			per hour) permeability.		
			They are underlain at 20 to		
			40 inches by sandstone,		
			interbedded with some		
			siltstone and shale.		
			Natural fertility of the		
			Dekalb soil is low and		
			DEVOID SOIT IS TOM GUO		

## Nontechnical Soils Descriptions AGR (Agronomic)

			I amailable water caracity is	1	
			available water capacity is		
ODE	7 CD	109E	very low to moderate.  These soils are not suited	Classic Dalas Ha	77.
CDE	AGR	109E		Clymer-Dekalb	Vie
			to cultivated crops or hay,	complex, steep	
			but are suited to pasture.		
			The hazard of erosion is		
			very severe in unprotected		
			areas and is a major		
			management concern. If		
			these soils are used for		
			pasture, overgrazing is a		
			major management concern.		
			Proper stocking rates to		
			maintain desirable grasses		
			and legumes and rotational		
			grazing are major pasture		
		_	management needs.		
CDE	GSG	AH3	AH3—Acid Hills—Moderately	Clymer-Dekalb	Vie
			deep, deep, very deep	complex, steep	
			moderately well and well		
			drained soils with low		
			natural fertility. Moderate		
			to high soil moisture		
			holding capacity and pH is		
			normally less than 5.3.		
			Slope ranges 25 to 60		
			percent or 25 to 45 percent		
			if severely eroded. Annual		
			precipitation is 41 to 50		
			inches		
CDE	SOI	004	This Clymer-Dekalb complex		
			consists of Clymer and		
			Dekalb soils which are		
			intermixed in such an		
			intricate pattern that they		
			cannot be separated in		
			mapping at this scale.		
			Clymer soils are deep, well		
			drained soils found on		
			upland ridges and side		
			slopes. Estimated		
			permeability is moderate		
			(0.6 to 2.0 inches per		
			hour). These soils have a		
			medium textured surface and		
			subsurface. This soil is		
			underlain by siltstone or		
			sandstone bedrock at depths		
			of 40 to 60 inches. Natural		
			fertility of the Clymer soil		
			is moderate and available		

## Nontechnical Soils Descriptions AGR (Agronomic)

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			water capacity is moderate		
			to high. Dekalb soils are		
			moderately deep, well		
			drained soils on uplands.		
			They have moderately coarse		
			textured surface layers and		
			moderately coarse to medium		
			textured subsoils. The		
			subsoil has over 35%		
			sandstone fragments. The		
			subsoil has moderately rapid		
			(estimated 2.0 to 6.0 inches		
			per hour) permeability.		
			They are underlain at 20 to		
			40 inches by sandstone,		
			interbedded with some		
			siltstone and shale.		
			Natural fertility of the		
			Dekalb soil is low and		
			available water capacity is		
			very low to moderate.		
CDF	AGR	109F	These soils are not suited	Clymer-Dekalb	VIIe
			to cultivated crops, hay or	complex, very steep	
			pasture. The hazard of		
			erosion is very severe in		
			unprotected areas.		
CDF	GSG	AH3	AH3-Acid Hills-Moderately	Clymer-Dekalb	VIIe
			deep, deep, very deep	complex, very steep	
			moderately well and well		
			drained soils with low		
			natural fertility. Moderate		
			to high soil moisture		
			holding capacity and pH is		
			normally less than 5.3.		
			Slope ranges 25 to 60		
			percent or 25 to 45 percent		
			if severely eroded. Annual		
			precipitation is 41 to 50		
			inches		
CDF	SOI	004	This Clymer-Dekalb complex		
			consists of Clymer and		
			Dekalb soils which are		
			intermixed in such an		
			intricate pattern that they		
	1	1	lannot be consented in	1	
			cannot be separated in		
1			mapping at this scale.		
			mapping at this scale. Clymer soils are deep, well drained soils found on		
			mapping at this scale. Clymer soils are deep, well		
			mapping at this scale. Clymer soils are deep, well drained soils found on		

			(0.6 to 2.0 inches per		
			hour). These soils have a		
			medium textured surface and		
			subsurface. This soil is		
			underlain by siltstone or		
			sandstone bedrock at depths		
			of 40 to 60 inches. Natural		
			fertility of the Clymer soil		
			is moderate and available		
			water capacity is moderate		
			to high. Dekalb soils are		
			moderately deep, well		
			drained soils on uplands.		
			They have moderately coarse		
			textured surface layers and		
			moderately coarse to medium		
			textured subsoils. The		
			subsoil has over 35%		
			sandstone fragments. The		
			subsoil has moderately rapid		
			(estimated 2.0 to 6.0 inches		
			per hour) permeability.		
			They are underlain at 20 to		
			40 inches by sandstone,		
			interbedded with some		
			siltstone and shale.		
			Natural fertility of the		
			Dekalb soil is low and		
			available water capacity is		
			very low to moderate.		
СоВ	AGR	003B	This soil is suited to	Coolville silt loam,	IIe
			cultivated crops and to hay	3 to 10 percent	
			and pasture. The hazard of	slopes	
			erosion, which is moderate		
			in unprotected areas, is a		
			management concern. If this		
			soil is cultivated, farming		
			on the contour, using a crop		
			sequence that includes hay,		
			and returning crop residue		
			to the soil help to control		
			erosion and to maintain		
			fertility and tilth. If		
			this soil is used for		
			pasture, the major		
			management needs include		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes, rotational		
			grazing, and deferment of		
			grazing in the spring until		

			the soil is reasonably firm.		
СоВ	GSG	FL3	FL3—Fertile Loams—	Coolville silt loam,	IIe
COD	000	113	Moderately deep, deep, and	3 to 10 percent	110
			very deep moderately well	slopes	
			and well drained soils with	stopes	
			moderate natural fertility.		
			Moderate soil moisture		
			holding capacity and pH is		
			normally greater then 5.3.		
			Slope ranges from 0 to 25		
			percent. Annual		
			precipitation is 41 to 50		
			inches		
СоВ	SOI	003	Coolville soils are deep,		
			and moderately well drained		
			(seasonal high water table		
			at depth of 16 to 30 inches		
			below the soil surface)		
			soil. Estimated		
			permeability is slow (0.06		
			to 0.2 inches per hour).		
			These soils have a medium		
			textured surface layer and a		
			moderately fine to fine		
			subsoil. Bedrock is		
			generally at depths of 40 to		
			60 inches, and is generally		
			rippable with light power		
			equipment. Natural		
			fertility is moderate and		
			available water capacity is		
			moderate or high.		
CoC	AGR	003C	This soil is suited to	Coolville silt loam,	IIIe
			cultivated crops and to hay	10 to 20 percent	
			and pasture. The hazard of	slopes	
			erosion, which is severe in		
			unprotected areas, is a		
			management concern. Using a		
			conservation tillage system,		
			growing crops in contour		
			strips, using a crop		
			sequence that includes hay,		
			and returning crop residue		
			to the soil help to control		
			erosion and to maintain		
			fertility and tilth. If		
			this soil is used for		
			pasture, the major		
			management needs include		
			proper stocking rates to		
			1 = = =		
		1	maintain desirable grasses	1	

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			and legumes, rotational		
			grazing, and deferment of		
			grazing in the spring until		
~ ~	~~~	<b></b> 0	the soil is reasonably firm.	~ 1 '11 '11 '1	
CoC	GSG	FL3	FL3-Fertile Loams	Coolville silt loam,	IIIe
			Moderately deep, deep, and	10 to 20 percent	
			very deep moderately well	slopes	
			and well drained soils with		
			moderate natural fertility.		
			Moderate soil moisture		
			holding capacity and pH is		
			normally greater then 5.3.		
			Slope ranges from 0 to 25		
			percent. Annual		
			precipitation is 41 to 50		
0 - 0	007	000	inches		
CoC	SOI	003	Coolville soils are deep,		
			and moderately well drained		
			(seasonal high water table		
			at depth of 16 to 30 inches below the soil surface)		
			soil. Estimated		
			permeability is slow (0.06 to 0.2 inches per hour).		
			These soils have a medium		
			textured surface layer and a		
			moderately fine to fine		
			subsoil. Bedrock is		
			generally at depths of 40 to		
			60 inches, and is generally		
			rippable with light power		
			equipment. Natural		
			fertility is moderate and		
			available water capacity is		
			moderate or high.		
CrC3	AGR	014C3	These soils have limited	Coolville silty clay	IVe
			suitability for cultivated	loam, 10 to 20	_
			crops and are better suited	percent slopes,	
			to hay or pasture. The	severely eroded	
			hazard of erosion, which is	_	
			very severe in unprotected		
			areas, is a major management		
			concern. Using a		
			conservation tillage system,		
			growing crops in contour		
			strips, using a crop		
			sequence that includes hay,		
			and returning crop residue		
			to the soil help to control		
			erosion and to maintain		
1	1		fertility and tilth. If the		

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			soils are used for pasture,		
			the major management needs		
			include proper stocking		
			rates to maintain desirable		
			grasses and legumes,		
			rotational grazing, and		
			deferment of grazing until		
			the soil is reasonably firm.		
CrC3	GSG	FL3	FL3-Fertile Loams	Coolville silty clay	IVe
			Moderately deep, deep, and	loam, 10 to 20	
			very deep moderately well	percent slopes,	
			and well drained soils with	severely eroded	
			moderate natural fertility.		
			Moderate soil moisture		
			holding capacity and pH is		
			normally greater then 5.3.		
			Slope ranges from 0 to 25		
			percent. Annual		
			precipitation is 41 to 50		
			inches		
CrC3	SOI	003	Coolville soils are deep,		
			and moderately well drained		
			(seasonal high water table		
			at depth of 16 to 30 inches		
			below the soil surface)		
			soil. Estimated		
			permeability is slow (0.06		
			to 0.2 inches per hour).		
			These soils have a medium		
			textured surface layer and a		
			moderately fine to fine		
			subsoil. Bedrock is		
			generally at depths of 40 to		
			60 inches, and is generally		
			rippable with light power		
			equipment. Natural		
			fertility is moderate and		
			available water capacity is		
			moderate or high.		
Ct	AGR	017	This soil is suited to	Cotaco loam	IIw
	1101	01,	cultivated crops and to hay		
			and pasture. Cultivated		
			crops can be grown		
			continuously, but the soil		
			needs the protection of a		
			cover crop. Working the		
			residue from the cover crop		
			into the soil helps to		
			maintain fertility and		
			tilth. If this soil is used		
			for pasture, the major		
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### Nontechnical Soils Descriptions AGR (Agronomic)

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			management needs include		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes, rotational		
			grazing, and deferment of		
			grazing in the spring until		
			the soil is reasonably firm.		
Ct	GSG	AL3	AL3—Acid Loams—Moderately	Cotaco loam	IIw
	000	71110	deep, deep, and very deep	Cocaco Ioani	w
			moderately well and well		
			drained with low natural		
			fertility. Moderate to high		
			soil moisture holding		
			capacity and pH is normally		
			less than 5.3. Slope ranges		
			from 0 to 25 percent.		
			Annual precipitation is 41		
			to 50 inches.		
Ct	SOI	005	These Cotaco soils are very		
			deep, moderately well		
			drained (seasonal high water		
			table at a depth of 16 to 24		
			inches) and are found on		
			high alluvial bottoms.		
			Cotaco soils have a loam		
			surface texture and		
			dominantly clay loam subsoil. These soils have a		
			moderate soil permeability		
			(0.6 to 2.0 inches per		
			hour). Thes soils may flood		
			rarely under normal		
			conditions but for more		
			specific information on		
			flooding consult the Army		
			Corps of Engineers. Depth		
			to bedrock is greater than 5		
			feet. Natural fertility is		
			low to moderate and		
			available water capacity is		
			moderate to high.		
Dm	GSG	NS			
Dm	SOI	006	These Dump areas are		
ווועם	301	000	accumulations of waste from		
			industrial, commercial, and		
			municipal operations.		
			Tailings, chemicals, fly		
			ash, coal dumps, and solid		
			waste are examples of areas		
			included in this unit. Many		
			areas of Dumps are not		1

			covered by soil material.		
FL	AGR	039A	This soil is not suited to	Fluvaquents	IIIw
			cultivated crops unless		:
			artificial drainage was		
			installed prior to 1985 as a		
			<u> </u>		
			management practice. The soil is better suited to		
			water-tolerant hay or		
			pasture plants or wildlife		
			habitat in a natural state.		
			Using conservation tillage		
			systems and a crop sequence		
			that includes hay, delaying		
			tillage until the soil is		
			reasonably dry, and		
			returning crop residue to		
			the soil help to maintain		
			fertility and tilth. If		
			this soil is used for		
			pasture, the major		
			management needs include		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes, rotational		
			grazing, and deferment of		
			= = = = = = = = = = = = = = = = = = =		
			grazing in the spring until the soil is reasonably firm.		
FL	GSG	W3	W3 Wetlands-Very deep,	Flurraguenta	IIIw
гш	GSG	WS	<u> </u>	Fluvaquents	TTTW
			poorly and very poorly drained soils with low to		
			moderate natural fertility.		
			High soil moisture holding		
			capacity and pH ranges from		
			4.0 to 6.o. Annual		
			precipitation is 41 to 50		
			inches.		
FL	SOI	007	These (Fluvaquents) soils		
			are nearly level, poorly to		
			somewhat poorly drained		
			(seasonal high water table		
			at or near the soil surface		
			to a depth of 16 inches),		
			deep soils and mainly on		
			floodplains. They have a		
			medium surface texture and		
			medium to fine textured		
			subsoil. These soils are		
			too variable to estimate the		
			permeability. Bedrock is		
			usually at depths greater		
<u> </u>	1		than 4 feet and is generally		1

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			rippable with light power		
			equipment. Natural fertility		
			is low to moderate and		
			available water capacity is		
			moderate to high.		
GlC	AGR	008C	This soil is suited to	Gilpin silt loam, 10	IIIe
			cultivated crops and to hay	to 20 percent slopes	
			and pasture. The hazard of		
			erosion, which is severe in		
			•		
			unprotected areas, is a		
			management concern. Using a		
			conservation tillage system,		
			growing crops in contour		
			strips, maintaining sod in		
			shallow drainageways, using		
			a crop sequence that		
			includes hay, and returning		
			crop residue to the soil		
			help to control erosion and		
			to maintain fertility and		
			tilth. If this soil is used		
			for pasture, the major		
			management needs include		
			rotational grazing and		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes.		
GlC	GSG	AL3	AL3—Acid Loams—Moderately	Gilpin silt loam, 10	IIIe
			deep, deep, and very deep	to 20 percent slopes	
			moderately well and well		
			drained with low natural		
			fertility. Moderate to high		
			soil moisture holding		
			capacity and pH is normally		
			less than 5.3. Slope ranges		
			from 0 to 25 percent.		
			Annual precipitation is 41		
			to 50 inches.		
C1.C	COT	000			
GlC	SOI	008	Gilpin soil are moderately		
			deep, well drained soils		
			formed in residuum from acid		
			shale, siltstone and		
			sandstone. They have medium		
			textured surface and medium		
			to moderately fine textured		
			subsoil. These soils		
			generally have 10 to 35		
			percent rock fragments in		
			the subsoil. Estimate soil		
			permeability is moderate		
			(0.6 to 2.0 inches per		
1	1	ĺ	(0.0 to 2.0 inches per		l

_					
			hour). Bedrock is at depths		
			of 20 to 40 inches. The		
			bedrock is generally		
			rippable with light power		
			equipment. Natural		
			fertility is low or moderate		
			and available water capacity		
			is low or moderate.		
GlD	GSG	AL3	AL3—Acid Loams—Moderately		
			deep, deep, and very deep		
			moderately well and well		
			drained with low natural		
			fertility. Moderate to high		
			soil moisture holding		
			capacity and pH is normally		
			less than 5.3. Slope ranges		
			from 0 to 25 percent.		
			Annual precipitation is 41		
			to 50 inches.		
GlD	SOI	008	Gilpin soil are moderately		
			deep, well drained soils		
			formed in residuum from acid		
			shale, siltstone and		
			sandstone. They have medium		
			textured surface and medium		
			to moderately fine textured		
			subsoil. These soils		
			generally have 10 to 35		
			percent rock fragments in		
			the subsoil. Estimate soil		
			permeability is moderate		
			(0.6 to 2.0 inches per		
			hour). Bedrock is at depths		
			of 20 to 40 inches. The		
			bedrock is generally		
			rippable with light power		
			equipment. Natural		
			fertility is low or moderate		
			and available water capacity		
			is low or moderate.		
GlE	AGR	008E	This soil is not suited to	Gilpin silt loam, 30	Vie
			cultivated crops or hay, but	to 40 percent slopes	-
			is suited to pasture. The		
			hazard of erosion is very		
			severe in unprotected areas		
			and is a major management		
			concern. If this soils is		
			used for pasture,		
			overgrazing is a major		
			management concern. If this		
			soil is used for pasture,		
L	l	L	DOTE TO about for pastare,		

			T .	T	1
			the major management needs		
			include rotational grazing		
			and proper stocking rates to		
			maintain desirable grasses		
			and legumes.		
GlE	GSG	AH3	AH3-Acid Hills-Moderately	Gilpin silt loam, 30	Vie
012	000	11110	deep, deep, very deep	to 40 percent slopes	
			moderately well and well	l co to percent bropes	
			drained soils with low		
			natural fertility. Moderate		
			to high soil moisture		
			holding capacity and pH is		
			normally less than 5.3.		
			Slope ranges 25 to 60		
			percent or 25 to 45 percent		
			if severely eroded. Annual		
			precipitation is 41 to 50		
			inches		
GlE	SOI	008	Gilpin soil are moderately		
011	501	300	deep, well drained soils		
			formed in residuum from acid		
			shale, siltstone and		
			sandstone. They have medium		
			textured surface and medium		
			to moderately fine textured		
			subsoil. These soils		
			generally have 10 to 35		
			percent rock fragments in		
			the subsoil. Estimate soil		
			permeability is moderate		
			(0.6 to 2.0 inches per		
			hour). Bedrock is at depths		
			of 20 to 40 inches. The		
			bedrock is generally		
			rippable with light power		
			equipment. Natural		
			fertility is low or moderate		
			and available water capacity		
			is low or moderate.		
GpC	AGR	009C	These soils are suited to	Gilpin-Upshur silt	IIIe
			cultivated crops and to hay	loams, 10 to 20	
			and pasture. The hazard of	percent slopes	
			erosion, which is severe in	_	
			unprotected areas, is a		
			management concern. Using a		
			conservation tillage system,		
			growing crops in contour		
			strips, using a crop		
			sequence that includes hay,		
			and returning crop residue		
			to the soil help to control	1	1

### Nontechnical Soils Descriptions AGR (Agronomic)

		1.			
			erosion and to maintain		
			fertility and tilth. If		
			these soils are used for		
			pasture, the major		
			management needs include		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes, rotational		
			grazing, and deferment of		
			grazing until the Upshur		
			soil is reasonably firm.		
GpC	GSG	AL3	AL3-Acid Loams-Moderately	Gilpin-Upshur silt	IIIe
_			deep, deep, and very deep	loams, 10 to 20	
			moderately well and well	percent slopes	
			drained with low natural		
			fertility. Moderate to high		
			soil moisture holding		
			capacity and pH is normally		
			less than 5.3. Slope ranges		
			from 0 to 25 percent.		
			Annual precipitation is 41		
			to 50 inches.		
GpC	SOI	009	This Gilpin-Upshur complex		
opc	501		consists of Gilpin and		
			Upshur soils which are		
			intermixed in such an		
			intricate pattern that they		
			cannot be separated in		
			mapping at this scale.		
			Gilpin soils are moderately		
			deep, well drained soils		
			which formed from acid		
			shale, siltstone, and		
			sandstone. They have medium		
			textured surface and medium		
			to moderately fine textured		
			subsoil. Estimated soil		
			permeability is moderate		
			(0.6 to 2.0 inches per		
			hour). Bedrock is at depths		
			of 20 to 40 inches. The		
			bedrock is generally		
			_ =		
			rippable with light power		
			equipment. Natural fertility of the Gilpin soil		
			is low or moderate and		
			available water capacity is low or moderate. Upshur		
			=		
			soils are deep well drained		
			soils which formed in limy		
I			material weathered from red		

### Nontechnical Soils Descriptions AGR (Agronomic)

	_		and olive shale. They have		
			moderately fine textured		
			surface and fine textured		
			subsoils which become sticky		
			and plastic when wet.		
			Estimated soil permeability		
			is very slow (less than 0.2		
			inches per hour). The depth		
			to bedrock is generally at		
			depths ranging from 40 to 60		
			inches and rippable with		
			light power equipment.		
			Natural fertility of the		
			Upshur soil is moderately		
			high and available water		
			capacity is moderate to		
			high. Upshur soils have a		
			slip hazard, especially on		
			slopes greater than 8		
			percent. The subsoil is		
			highly susceptible to		
			shrinking when dry and		
			swelling when wet.		
GpD	AGR	009D	These soils have limited	Gilpin-Upshur silt	IVe
-1			suitability for cultivated	loams, 20 to 30	
			=		
			crops and are better suited	percent slopes	
			crops and are better suited to hay and pasture. The		
			crops and are better suited to hay and pasture. The hazard of erosion, which is		
			crops and are better suited to hay and pasture. The hazard of erosion, which is severe in unprotected areas,		
			crops and are better suited to hay and pasture. The hazard of erosion, which is severe in unprotected areas, is a major management		
			crops and are better suited to hay and pasture. The hazard of erosion, which is severe in unprotected areas, is a major management concern. Using a		
			crops and are better suited to hay and pasture. The hazard of erosion, which is severe in unprotected areas, is a major management concern. Using a conservation tillage system,		
			crops and are better suited to hay and pasture. The hazard of erosion, which is severe in unprotected areas, is a major management concern. Using a conservation tillage system, growing crops in contour		
			crops and are better suited to hay and pasture. The hazard of erosion, which is severe in unprotected areas, is a major management concern. Using a conservation tillage system, growing crops in contour strips, using a crop		
			crops and are better suited to hay and pasture. The hazard of erosion, which is severe in unprotected areas, is a major management concern. Using a conservation tillage system, growing crops in contour strips, using a crop sequence that includes hay,		
			crops and are better suited to hay and pasture. The hazard of erosion, which is severe in unprotected areas, is a major management concern. Using a conservation tillage system, growing crops in contour strips, using a crop sequence that includes hay, and returning crop residue		
			crops and are better suited to hay and pasture. The hazard of erosion, which is severe in unprotected areas, is a major management concern. Using a conservation tillage system, growing crops in contour strips, using a crop sequence that includes hay, and returning crop residue to the soil are practices		
			crops and are better suited to hay and pasture. The hazard of erosion, which is severe in unprotected areas, is a major management concern. Using a conservation tillage system, growing crops in contour strips, using a crop sequence that includes hay, and returning crop residue to the soil are practices that help to control erosion		
			crops and are better suited to hay and pasture. The hazard of erosion, which is severe in unprotected areas, is a major management concern. Using a conservation tillage system, growing crops in contour strips, using a crop sequence that includes hay, and returning crop residue to the soil are practices that help to control erosion and to maintain fertility		
			crops and are better suited to hay and pasture. The hazard of erosion, which is severe in unprotected areas, is a major management concern. Using a conservation tillage system, growing crops in contour strips, using a crop sequence that includes hay, and returning crop residue to the soil are practices that help to control erosion and to maintain fertility and tilth. If these soils		
			crops and are better suited to hay and pasture. The hazard of erosion, which is severe in unprotected areas, is a major management concern. Using a conservation tillage system, growing crops in contour strips, using a crop sequence that includes hay, and returning crop residue to the soil are practices that help to control erosion and to maintain fertility and tilth. If these soils are used for pasture, the		
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			crops and are better suited to hay and pasture. The hazard of erosion, which is severe in unprotected areas, is a major management concern. Using a conservation tillage system, growing crops in contour strips, using a crop sequence that includes hay, and returning crop residue to the soil are practices that help to control erosion and to maintain fertility and tilth. If these soils are used for pasture, the major management needs include proper stocking rates to maintain desirable		
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GpD	GSG	AL3	crops and are better suited to hay and pasture. The hazard of erosion, which is severe in unprotected areas, is a major management concern. Using a conservation tillage system, growing crops in contour strips, using a crop sequence that includes hay, and returning crop residue to the soil are practices that help to control erosion and to maintain fertility and tilth. If these soils are used for pasture, the major management needs include proper stocking rates to maintain desirable grasses and legumes, rotational grazing, and deferment of grazing until the Upshur soil is		IVe

### Nontechnical Soils Descriptions AGR (Agronomic)

moderately well and well drained with low natural fertility. Moderate to high soil moisture holding capacity and pH is normally less than 5.3. Slope ranges from 0 to 25 percent. Annual precipitation is 41 to 50 inches.  GpD SOI 009 This Gilpin-Upshur complex consists of Gilpin and Upshur soils which are intermixed in such an intricate pattern that they cannot be separated in mapping at this scale. Gilpin soils are moderately deep, well drained soils which formed from acid shale, siltstone, and sandstone. They have medium textured surface and medium to moderately fine textured subsoil. Estimated soil permeability is moderate (0.6 to 2.0 inches per hour). Bedrock is at depths of 20 to 40 inches. The bedrock is generally rippable with light power
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rippable with light power
equipment. Natural
fertility of the Gilpin soil
is low or moderate and
available water capacity is
low or moderate. Upshur
soils are deep well drained
soils which formed in limy
material weathered from red
and olive shale. They have
moderately fine textured
surface and fine textured
subsoils which become sticky
and plastic when wet.
Estimated soil permeability
is very slow (less than 0.2
inches per hour). The depth
to bedrock is generally at
depths ranging from 40 to 60
inches and rippable with
light power equipment.
Natural fertility of the

			Upshur soil is moderately		
			high and available water		
			capacity is moderate to		
			high. Upshur soils have a		
			slip hazard, especially on		
			slopes greater than 8		
			percent. The subsoil is		
			highly susceptible to		
			shrinking when dry and		
			swelling when wet.		
GRE	AGR	009E	These soils are not suited	Filpin-Upshur silt	VIe
OIG	11010	0031	to cultivated crops or hay,	loams, steep	V 1 C
			but are suited to pasture.	Todais, Secep	
			The hazard of erosion is		
			very severe in unprotected		
			areas and is a major		
			management concern. If		
			these soils are used for		
			pasture, overgrazing is a		
			major management concern.		
			Proper stocking rates to		
			maintain desirable grasses		
			and legumes, rotational		
			grazing, and deferment of		
			grazing until the Upshur		
			soil is reasonably firm are		
			major pasture management		
			needs.		
GRE	GSG	AH3	AH3—Acid Hills—Moderately	Filpin-Upshur silt	VIe
			deep, deep, very deep	loams, steep	
			moderately well and well		
			drained soils with low		
			natural fertility. Moderate		
			to high soil moisture		
			holding capacity and pH is		
			normally less than 5.3.		
			Slope ranges 25 to 60		
			percent or 25 to 45 percent		
			if severely eroded. Annual		
			precipitation is 41 to 50		
			inches		
GRE	SOI	009	This Gilpin-Upshur complex		
01111			consists of Gilpin and		
			Upshur soils which are		
			intermixed in such an		
			intricate pattern that they		
			cannot be separated in		
			mapping at this scale.		
	1		Gilpin soils are moderately		
			deep, well drained soils		
			which formed from acid		

### Nontechnical Soils Descriptions AGR (Agronomic)

			shale, siltstone, and		
			sandstone. They have medium		
			textured surface and medium		
			to moderately fine textured		
			subsoil. Estimated soil		
			permeability is moderate		
			(0.6 to 2.0 inches per		
			hour). Bedrock is at depths		
			of 20 to 40 inches. The		
			bedrock is generally		
			rippable with light power		
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			fertility of the Gilpin soil		
			is low or moderate and		
			available water capacity is		
			low or moderate. Upshur		
1			soils are deep well drained		
			soils which formed in limy		
			material weathered from red		
			and olive shale. They have		
			moderately fine textured		
			surface and fine textured		
			subsoils which become sticky		
			and plastic when wet.		
			Estimated soil permeability		
			is very slow (less than 0.2		
			inches per hour). The depth		
			to bedrock is generally at		
			depths ranging from 40 to 60		
			inches and rippable with		
			light power equipment.		
			Natural fertility of the		
			Upshur soil is moderately		
			high and available water		
			capacity is moderate to		
			high. Upshur soils have a		
			slip hazard, especially on		
			slopes greater than 8		
			percent. The subsoil is		
			highly susceptible to		
			shrinking when dry and		
			swelling when wet.		
GRF	AGR	009F	These soils are not suited	Gilpin-Upshur silt	VIIe
			to cultivated crops or hay	loams, very steep	
1			and are difficult to manage		
1			for pasture. The hazard of		
1			erosion is very severe in		
			unprotected areas.		
GRF	GSG	АНЗ	AH3-Acid Hills-Moderately	Gilpin-Upshur silt	VIIe
			deep, deep, very deep	loams, very steep	
			moderately well and well		
			-	1	

			drained soils with low		
			natural fertility. Moderate		
			to high soil moisture		
			holding capacity and pH is		
			normally less than 5.3.		
			Slope ranges 25 to 60		
			percent or 25 to 45 percent		
			if severely eroded. Annual		
			precipitation is 41 to 50		
			inches		
GRF	SOI	009	This Gilpin-Upshur complex		
			consists of Gilpin and		
			Upshur soils which are		
			intermixed in such an		
			intricate pattern that they		
			cannot be separated in		
			mapping at this scale.		
			Gilpin soils are moderately		
			deep, well drained soils		
			which formed from acid		
			shale, siltstone, and		
			sandstone. They have medium		
			textured surface and medium		
			to moderately fine textured		
			subsoil. Estimated soil		
			permeability is moderate		
			(0.6 to 2.0 inches per		
			hour). Bedrock is at depths		
			of 20 to 40 inches. The		
			bedrock is generally		
			rippable with light power		
			equipment. Natural		
			fertility of the Gilpin soil		
			is low or moderate and		
			available water capacity is		
			low or moderate. Upshur		
			soils are deep well drained		
			soils which formed in limy		
			material weathered from red		
			and olive shale. They have		
			moderately fine textured		
			surface and fine textured		
			subsoils which become sticky		
			and plastic when wet.		
			Estimated soil permeability		
			is very slow (less than 0.2		
			inches per hour). The depth		
			to bedrock is generally at		
			depths ranging from 40 to 60		
			inches and rippable with		
			light power equipment.		
	1	<u> </u>	5-10   P 0 11 0 1 0 1 0 1 1 1 1 1 1 1 1 1 1 1	<u>L</u>	

		1	T		1
			Natural fertility of the		
			Upshur soil is moderately		
			high and available water		
			capacity is moderate to		
			high. Upshur soils have a		
			slip hazard, especially on		
			slopes greater than 8		
			percent. The subsoil is		
			highly susceptible to		
			shrinking when dry and		
			swelling when wet.		
GsC3	AGR	010C	These soils have limited	Gilpin-Upshur silt	IVe
0505	11010	0100	suitability for cultivated	loam, 10 to 20	100
			crops and are better suited	percent slopes,	
			<u> </u>		
			to hay and pasture. The	severely eroded	
			hazard of erosion, which is		
			very severe in unprotected		
			areas, is a major management		
			concern. Using a		
			conservation tillage system,		
			growing crops in contour		
			strips, using a crop		
			sequence that includes hay,		
			and returning crops residue		
			to the soil help to control		
			erosion and to maintain		
			fertility and tilth. If		
			these soils are used for		
			pasture, the major		
			management needs include		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes, rotational		
			grazing, and deferment of		
			grazing until the Upshur		
			soil is reasonably firm.		
GsC3	GSG	AL3	AL3—Acid Loams—Moderately	Gilpin-Upshur silt	IVe
			deep, deep, and very deep	loam, 10 to 20	
			moderately well and well	percent slopes,	
			drained with low natural	severely eroded	
			fertility. Moderate to high		
			soil moisture holding		
			capacity and pH is normally		
			less than 5.3. Slope ranges		
			from 0 to 25 percent.		
			Annual precipitation is 41		
			to 50 inches.		
GsC3	SOI	010	This Gilpin-Upshur complex		
GSCS	301	010			
			soil unit consists of Gilpin		
I		1	and Upshur soils which are		1
			intermixed in such an		

### **Nontechnical Soils Descriptions**

AGR (Agronomic) SOI (Basic Soils) GSG (Grassland Suitability) WSD (Woodland Suitability) URB (Urbanland)

intricate pattern that they cannot be separated in mapping at this scale. Soil slips and shallow gullies are found in some areas of this severely eroded unit. Gilpin soils are moderately deep, well drained soils which formed from acid shale, siltstone, and sandstone. They have medium textured surface and medium to moderately fine textured subsoil. Estimated soil permeability is moderate (0.6 to 2.0 inches per hour). Bedrock is at depths of 20 to 40 inches. The bedrock is generally rippable with light power equipment. Natural fertility of the Gilpin soil is low or moderate and available water capacity is low or moderate. Upshur soils are deep well drained soils which formed in limy material weathered from red and olive shale. They have moderately fine textured surface and fine textured subsoils which become sticky and plastic when wet. Estimated soil permeability is very slow (less than 0.2 inches per hour). The depth to bedrock is generally at depths of 40 to 60 inches and is rippable with light power equipment. Natural fertility of the Upshur soil is moderately high and available water capacity is moderate to high. Upshur soils have a slip hazard, especially on slopes greater than 8 percent. Their subsoil are highly susceptible to shrinking when dry and swelling when wet.

## Nontechnical Soils Descriptions AGR (Agronomic)

Cabs	N C D	0100	Those soils are not suited	Cilnin-IInchus	Vie
GsD3	AGR	010D	These soils are not suited	Gilpin-Upshur complex 20 to 30	AT6
			to cultivated crops or hay,	=	
			but are suited to pasture.	percent slopes,	
			The hazard of erosion is	severely eroded	
			very severe in unprotected		
			areas and is a major		
			management concern. If		
			these soils are used for		
			pasture, overgrazing can		
			result in more severe		
			erosion. Proper stocking		
			rates to maintain desirable		
			grasses and legumes,		
			rotational grazing, and		
			deferment of grazing until		
			the Upshur soil is		
			reasonably firm are major		
			pasture management needs.		
GsD3	GSG	AL3	AL3-Acid Loams-Moderately	Gilpin-Upshur	Vie
כעפט	929	чпЭ	_	complex 20 to 30	\
1			deep, deep, and very deep	-	
			moderately well and well	percent slopes,	
			drained with low natural	severely eroded	
			fertility. Moderate to high		
			soil moisture holding		
			capacity and pH is normally		
			less than 5.3. Slope ranges		
			from 0 to 25 percent.		
			Annual precipitation is 41		
			to 50 inches.		
GsD3	SOI	010	This Gilpin-Upshur complex		
			soil unit consists of Gilpin		
			and Upshur soils which are		
			intermixed in such an		
			intricate pattern that they		
			cannot be separated in		
			mapping at this scale. Soil		
			slips and shallow gullies		
			are found in some areas of		
			this severely eroded unit.		
			Gilpin soils are moderately		
			deep, well drained soils		
			which formed from acid		
			shale, siltstone, and		
			sandstone. They have medium		
			textured surface and medium		
			to moderately fine textured		
			subsoil. Estimated soil		
			permeability is moderate		
			(0.6 to 2.0 inches per		
			hour). Bedrock is at depths		
1			of 20 to 40 inches. The		
	<u> </u>	L		1	1

### Nontechnical Soils Descriptions AGR (Agronomic)

			bedrock is generally		
			rippable with light power		
			equipment. Natural		
			fertility of the Gilpin soil		
			is low or moderate and		
			available water capacity is		
			low or moderate. Upshur		
			soils are deep well drained		
			soils which formed in limy		
			_		
			material weathered from red		
			and olive shale. They have		
			moderately fine textured		
			surface and fine textured		
			subsoils which become sticky		
			and plastic when wet.		
			Estimated soil permeability		
			is very slow (less than 0.2		
			inches per hour). The		
			depth to bedrock is		
			generally at depths of 40 to		
			60 inches and is rippable		
			with light power equipment.		
			Natural fertility of the		
			Upshur soil is moderately		
			high and available water		
			capacity is moderate to		
			high. Upshur soils have a		
			slip hazard, especially on		
			slopes greater than 8		
			percent. Their subsoil are		
			highly susceptible to		
			shrinking when dry and		
			swelling when wet.		
GuE3	AGR	010E	These soils are not suited	Gilpin-Upshur	VIIe
			to cultivated crops or hay	complex, steep,	
			and are difficult to manage	severely eroded	
			for pasture. The hazard of		
			erosion is very severe in		
			unprotected areas. Bare		
			areas are difficult to		
			revegetate, but they should		
			be seeded to permanent		
			cover. Mulching will help		
			protect seeded areas until		
			the plants become		
			established.		
CE2	CCC	7 11 7		Cilmin Health	77T T 0
GuE3	GSG	AH3	AH3-Acid Hills-Moderately	Gilpin-Upshur	VIIe
			deep, deep, very deep	complex, steep,	
1			moderately well and well	severely eroded	
	1	I	drained soils with low		ı
			natural fertility. Moderate		

### Nontechnical Soils Descriptions AGR (Agronomic)

			to high soil moisture	
			holding capacity and pH is	
			normally less than 5.3.	
			Slope ranges 25 to 60	
			percent or 25 to 45 percent	
			if severely eroded. Annual	
			precipitation is 41 to 50	
			inches	
GuE3	SOI	010	This Gilpin-Upshur complex	
			soil unit consists of Gilpin	
			and Upshur soils which are	
			intermixed in such an	
			intricate pattern that they	
			cannot be separated in	
			mapping at this scale. Soil	
			slips and shallow gullies	
			are found in some areas of	
			this severely eroded unit.	
			Gilpin soils are moderately	
			deep, well drained soils	
			which formed from acid	
			shale, siltstone, and	
			sandstone. They have medium	
			textured surface and medium	
			to moderately fine textured	
			subsoil. Estimated soil	
			permeability is moderate	
			(0.6 to 2.0 inches per	
			hour). Bedrock is at depths	
			of 20 to 40 inches. The	
			bedrock is generally	
			rippable with light power	
			equipment. Natural	
			fertility of the Gilpin soil	
			is low or moderate and	
			available water capacity is	
			low or moderate. Upshur	
			soils are deep well drained	
			soils which formed in limy	
			material weathered from red	
			and olive shale. They have	
			moderately fine textured	
			surface and fine textured	
			subsoils which become sticky	
			and plastic when wet.	
			Estimated soil permeability	
			is very slow (less than 0.2	
			inches per hour). The	
			depth to bedrock is	
			generally at depths of 40 to	
			60 inches and is rippable	
	l	l	1 00 THOUGH WING TO LIBRANIE	

			with light power equipment.		
			Natural fertility of the		
			Upshur soil is moderately		
			high and available water		
			capacity is moderate to		
			high. Upshur soils have a		
			slip hazard, especially on		
			slopes greater than 8		
			_ = =		
			1 -		
			highly susceptible to		
			shrinking when dry and		
			swelling when wet.		
HaA	AGR	034A	This soil is well suited to	Hackers silt loam, 0	I
			cultivated crops and to hay	to 3 percent slopes	
			and pasture. Cultivated		
			crops can be grown		
			continuously, but the soil		
			needs the protection of a		
			cover crop. Working the		
			residue from the cover crop		
			into the soil helps to		
			maintain fertility and		
			tilth. If this soil is used		
			for pasture, the major		
			management needs include		
			rotational grazing and		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes.		
HaA	GSG	ML3	ML3-Moist Loams-Deep and	Hackers silt loam, 0	I
			very deep, well drained	to 3 percent slopes	
			soils with high natural		
			fertility. High moisture		
			holding capacity and pH is		
			normally greater than 5.3.		
			Slope ranges from 0 to 25		
			percent. Annual		
			precipitation is 41 to 50		
			inches		
НаА	SOI	011	These Hackers soils are deep		
11011	501	011	(greater than 5 feet to		
			bedrock), well drained soils		
			that formed in alluvial high		
			bottom sediments. They have		
			medium textured surface		
			layer and a medium to		
			moderately fine textured		
			subsoil. Estimated		
			permeability is moderate		
			(0.6 to 2.0 inches per		
			hour). These soils have a		

			none flood become and their		
			rare flood hazard and they		
			are flooded only when flood		
			waters are at their highest.		
			Natural fertility is high		
			and available water capacity		
			is high.		
НаВ	AGR	034B	This soil is suited to	Hackers silt loam, 3	IIe
	11011	0012	cultivated crops and to hay	to 8 percent slopes	110
			and pasture. The hazard of	l co o percent bropes	
			_		
			erosion, which is moderate		
			in unprotected areas, is a		
			management concern. If the		
			soil is cultivated, using a		
			conservation tillage system,		
			farming on the contour,		
			using a crop sequence that		
			includes hay, and returning		
			crop residue to the soil		
			help to control erosion and		
			to maintain fertility and		
			tilth. If this soil is used		
			for pasture, the major		
			management needs include		
			rotational grazing and		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes.		
НаВ	GSG	ML3	ML3-Moist Loams-Deep and	Hackers silt loam, 3	IIe
			very deep, well drained	to 8 percent slopes	
			soils with high natural		
			fertility. High moisture		
			holding capacity and pH is		
			normally greater than 5.3.		
			Slope ranges from 0 to 25		
			percent. Annual		
			precipitation is 41 to 50		
			inches		
НаВ	SOI	011	These Hackers soils are deep		
			(greater than 5 feet to		
			bedrock), well drained soils		
			that formed in alluvial high		
			bottom sediments. They have		
			medium textured surface		
			layer and a medium to		
			moderately fine textured		
			subsoil. Estimated		
	1	I			
			Inermeability is moderate		
			permeability is moderate		
			(0.6 to 2.0 inches per		
			(0.6 to 2.0 inches per hour). These soils have a		
			(0.6 to 2.0 inches per		

			waters are at their highest.		
			Natural fertility is high		
			and available water capacity		
			is high.		
KaA	AGR	034A	This soil is well suited to	Kanawha fine sandy	I
			cultivated crops and to hay	loam, 0 to 3 percent	
			and pasture. Cultivated	slopes	
			crops can be grown		
			continuously, but the soil		
			needs the protection of a		
			cover crop. Working the		
			residue from the cover crop		
			into the soil helps to		
			maintain fertility and		
			tilth. If this soil is used		
			for pasture, the major		
			management needs include		
			rotational grazing and		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes.		
KaA	GSG	ML3	ML3-Moist Loams-Deep and	Kanawha fine sandy	I
			very deep, well drained	loam, 0 to 3 percent	
			soils with high natural	slopes	
			fertility. High moisture		
			holding capacity and pH is		
			normally greater than 5.3.		
			Slope ranges from 0 to 25		
			percent. Annual		
			precipitation is 41 to 50		
			inches		
KaA	SOI	012	These Kanawha soils are very		
			deep (greater than 6 feet to		
			bedrock), well drained soils		
			that formed in alluvial high		
			bottom sediments. They have		
			medium to moderately coarse		
			textured surface layer and		
			generally a medium textured		
			subsoil. Estimated		
			permeability is moderate		
			(0.6 to 2.0 inches per		
			hour). These soils have a		
			rare flood hazard in areas		
			not protected from flooding.		
			They are flooded only when		
1			flood waters are at their		
			highest. Consult the Army		
1			Corps of Engineers for more		
1			specific information on		
			flooding frequency. Natural		

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			fertility is high and		
			available water capacity is		
			high.		
KaB	AGR	034B	This soil is suited to	Kanawha fine sandy	IIe
			cultivated crops and to hay	loam, 3 to 8 percent	
			and pasture. The hazard of	slope	
			erosion, which is moderate		
			in unprotected areas, is a		
			management concern. If the		
			soil is cultivated, using a		
			conservation tillage system,		
			farming on the contour,		
			using a crop sequence that		
			includes hay, and returning		
			crop residue to the soil		
			help to control erosion and		
			to maintain fertility and		
			tilth. If this soil is used for pasture, the major		
			management needs include		
			rotational grazing and		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes.		
KaB	GSG	ML3	ML3-Moist Loams-Deep and	Kanawha fine sandy	IIe
Rab		11115	very deep, well drained	loam, 3 to 8 percent	110
			soils with high natural	slope	
			fertility. High moisture	51000	
			holding capacity and pH is		
			normally greater than 5.3.		
			Slope ranges from 0 to 25		
			percent. Annual		
			precipitation is 41 to 50		
			inches		
КаВ	SOI	012	These Kanawha soils are very		
			deep (greater than 6 feet to		
			bedrock), well drained soils		
			that formed in alluvial high		
			bottom sediments. They have		
			medium to moderately coarse		
			textured surface layer and		
			generally a medium textured		
			subsoil. Estimated		
			permeability is moderate		
			(0.6 to 2.0 inches per		
			hour). These soils have a		
			rare flood hazard in areas		
			not protected from flooding.		
			They are flooded only when		
			flood waters are at their		
			highest. Consult the Army		

			Q	T	1
			Corps of Engineers for more		
			specific information on		
			flooding frequency. Natural		
			fertility is high and		
			available water capacity is		
			high.		
LaD	AGR	028D	This soil has limited	Ladig channery sandy	IVe
			suitability for cultivated	loam, 15 to 25	
			crops. It is better suited	percent slopes	
			to hay or pasture. The	percent bropes	
			hazard of erosion, which is		
			·		
			severe in unprotected areas,		
			is a major management		
			concern. Using a		
			conservation tillage system,		
			growing crops in contour		
			strips, maintaining sod in		
			shallow drainageways, using		
			a crop sequence that		
			includes hay, and returning		
			crop residue to the soil		
			help to control erosion and		
			to maintain fertility and		
			tilth. If this soil is used		
			for pasture, the major		
			management needs include		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes, rotational		
			grazing, and deferment of		
			grazing in the spring until		
			the soil is reasonably firm.		
LaD	GSG	AL3	AL3-Acid Loams-Moderately	Ladig channery sandy	IVe
			deep, deep, and very deep	loam, 15 to 25	
			moderately well and well	percent slopes	
			drained with low natural		
			fertility. Moderate to high		
			soil moisture holding		
			capacity and pH is normally		
			less than 5.3. Slope ranges		
			from 0 to 25 percent.		
			<u> </u>		
			Annual precipitation is 41		
ļ	207	010	to 50 inches.		
LaD	SOI	013	These Laidig soils are well		
			drained, very deep soils		
			formed in colluvium on		
			footslopes from erosion and		
			weathering of sandstone,		
			shale and siltstone on		
			residuum hillsides. These		
			soils generally have a sandy		
L		<del></del>	1	ļ	

			loam surface and channery loam subsoil. Permeability is moderately slow (estimated at 0.2 to 0.6 inches per hour) in the fragipan and moderately		
			rapid (estimated at 2.0 to 6.0 inches per hour) above the pan. A seasonal high water table is found at depths of 30 to 48 inches and bedrock is found at		
			depths of 5 feet or more.  Natural fertility is low to moderate and available water capacity is moderate. This soil is susceptible to soil slippage.		
LaE	AGR	028E	This soil is not suited to cultivated crops or hay, but it is suited to pasture. The hazard of erosion, which is very severe in	Laidig channery sandy loam 25 to 35 percent slopes	Vie
			unprotected areas, is a major management concern. If this soil is used for pasture, overgrazing is a major management concern. Major pasture needs include		
			proper stocking rates to maintain desirable grasses and legumes, rotational grazing, and deferment of grazing in the spring until the soil is reasonably firm.		
LaE	GSG	АН3	AH3—Acid Hills—Moderately deep, deep, very deep moderately well and well drained soils with low natural fertility. Moderate to high soil moisture holding capacity and pH is	Laidig channery sandy loam 25 to 35 percent slopes	Vie
	907	010	normally less than 5.3. Slope ranges 25 to 60 percent or 25 to 45 percent if severely eroded. Annual precipitation is 41 to 50 inches		
LaE	SOI	013	These Laidig soils are well drained, very deep soils formed in colluvium on		

### Nontechnical Soils Descriptions AGR (Agronomic)

footslopes from erosion and	
weathering of sandstone,	
shale and siltstone on	
residuum hillsides. These	
soils generally have a sandy	
loam surface and channery	
loam subsoil. Permeability	
is moderately slow	
(estimated at 0.2 to 0.6	
inches per hour) in the	
fragipan and moderately	
rapid (estimated at 2.0 to	
6.0 inches per hour) above	
the pan. A seasonal high	
water table is found at	
depths of 30 to 48 inches	
and bedrock is found at	
depths of 5 feet or more.	
Natural fertility is low to	
moderate and available water	
capacity is moderate. This	
soil is susceptible to soil	
slippage.	
LdB AGR 034B This soil is suited to Laidig channery IIe	
cultivated crops and to hay loam, 3 to 8 percent	
and pasture. The hazard of slopes	
erosion, which is moderate	
in unprotected areas, is a	
management concern. If the	
soil is cultivated, using a	
conservation tillage system,	
farming on the contour,	
using a crop sequence that	
includes hay, and returning	
crop residue to the soil	
help to control erosion and	
to maintain fertility and	
tilth. If this soil is used	
for pasture, the major	
management needs include	
rotational grazing and	
proper stocking rates to	
maintain desirable grasses	
and legumes.	
LdB GSG AL3 AL3—Acid Loams—Moderately Laidig channery IIe	
deep, deep, and very deep loam, 3 to 8 percent	
moderately well and well slopes	
drained with low natural	
fertility. Moderate to high	
soil moisture holding	

### Nontechnical Soils Descriptions AGR (Agronomic)

	1	1	I 5.0 5.1	I	1
			less than 5.3. Slope ranges		
			from 0 to 25 percent.		
			Annual precipitation is 41		
			to 50 inches.		
LdB	SOI	013	These Laidig soils are well		
			drained, very deep soils		
			formed in colluvium on		
			footslopes from erosion and		
			weathering of sandstone,		
			shale and siltstone on		
			residuum hillsides. These		
			soils generally have a sandy		
			loam surface and channery		
			loam subsoil. Permeability		
			is moderately slow		
			(estimated at 0.2 to 0.6		
			inches per hour) in the		
			fragipan and moderately		
			3 2		
			rapid (estimated at 2.0 to		
			6.0 inches per hour) above		
			the pan. A seasonal high		
			water table is found at		
			depths of 30 to 48 inches		
			and bedrock is found at		
			depths of 5 feet or more.		
			Natural fertility is low to		
			moderate and available water		
			capacity is moderate. This		
			soil is susceptible to soil		
			slippage.		
LdC	AGR	028C	This soil is suited to	Laidig channery	IIIe
			cultivated crops and to hay	loam, 8 to 15	
			and pasture. The hazard of	percent slopes	
			erosion, which is severe in		
			unprotected areas, is a		
			management concern. Using a		
			conservation tillage system,		
			growing crops in contour		
			strips, maintaining sod in		
			shallow drainageways, using		
			a crop sequence that		
			includes hay, and returning		
			crop residue to the soil		
			help to control erosion and		
			to maintain fertility and		
			tilth. If this soil is used		
			for pasture, the major		
			management needs include		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes, rotational		
	I .	L	and regumes, rotationar		

			araging and deferment of		
			grazing, and deferment of		
			grazing in the spring until		
			the soil is reasonably firm.		
LdC	GSG	AL3	AL3—Acid Loams—Moderately	Laidig channery	IIIe
			deep, deep, and very deep	loam, 8 to 15	
			moderately well and well	percent slopes	
			drained with low natural		
			fertility. Moderate to high		
			soil moisture holding		
			capacity and pH is normally		
			less than 5.3. Slope ranges		
			from 0 to 25 percent.		
			Annual precipitation is 41		
			to 50 inches.		
LdC	SOI	013	These Laidig soils are well		
шас	501	013			
			drained, very deep soils		
			formed in colluvium on		
			footslopes from erosion and		
			weathering of sandstone,		
			shale and siltstone on		
			residuum hillsides. These		
			soils generally have a sandy		
			loam surface and channery		
			loam subsoil. Permeability		
			is moderately slow		
			(estimated at 0.2 to 0.6		
			inches per hour) in the		
			fragipan and moderately		
			rapid (estimated at 2.0 to		
			6.0 inches per hour) above		
			the pan. A seasonal high		
			=		
			water table is found at		
			depths of 30 to 48 inches		
			and bedrock is found at		
			depths of 5 feet or more.		
			Natural fertility is low to		
			moderate and available water		
			capacity is moderate. This		
			soil is susceptible to soil		
			slippage.		
MgB	AGR	014B	This soil is suited to	Monongahela silt	IIe
			cultivated crops and to hay	loam, 3 to 8 percent	
			and pasture. The hazard of	slopes	
			erosion, which is moderate		
			in unprotected areas, is a		
			management concern. If this		
			soil is cultivated, farming		
			on the contour, using a crop		
			sequence that included hay,		
			and returning crop residue		
			to the soil help to control		

			<u>,                                      </u>		
			erosion and to maintain		
			fertility and tilth. If		
			this soil is used for		
			pasture, the major		
			management needs include		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes, rotational		
			grazing, and deferment of		
			grazing in the spring until		
			the soil is reasonably firm.		
MgB	GSG	AL3	AL3—Acid Loams—Moderately	Monongahela silt	IIe
			deep, deep, and very deep	loam, 3 to 8 percent	
			moderately well and well	slopes	
			drained with low natural		
			fertility. Moderate to high		
			soil moisture holding		
			capacity and pH is normally		
			less than 5.3. Slope ranges		
			from 0 to 25 percent.		
			Annual precipitation is 41		
			to 50 inches.		
MgB	SOI	014	These Monongahela soils are		
			very deep, moderately well		
			drained soils on high stream		
			terraces. They have medium		
			textured surface layers and		
			medium to moderately fine		
			textured subsoils.		
			Monongahela soils have a		
			firm and brittle fragipan		
			layer 18 to 30 inches below		
			the surface, which has slow		
			(estimated 0.06 to 0.2		
			inches per hour)		
			permeability. They have a		
			seasonal high water table at		
			18 to 30 inches below the		
			surface. Bedrock is		
			generally at depths greater		
			than 5 feet. Natural		
			fertility is low and		
			available water capacity is		
11. 2		01.11	moderate.		
MgC	AGR	014C	This soil is suited to	Monongahela silt	IIIe
			cultivated crops and to hay	loam, 8 to 15	
			and pasture. The hazard of	percent slopes	
			erosion, which is severe in		
			unprotected areas, is a		
			management concern. Using a		
1		ĺ	conservation tillage system,		

			growing crops in contour		
			strips, using a crop		
			sequence that includes hay,		
			and returning crop residue		
			to the soil help to control		
			erosion and to maintain		
			fertility and tilth. If		
			this soil is used for		
			pasture, the major		
			management needs include		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes, rotational		
			=		
			grazing, and deferment of		
			grazing in the spring until		
M C	000	7.7.	the soil is reasonably firm.	No	
MgC	GSG	AL3	AL3—Acid Loams—Moderately	Monongahela silt	IIIe
			deep, deep, and very deep	loam, 8 to 15	
			moderately well and well	percent slopes	
			drained with low natural		
			fertility. Moderate to high		
			soil moisture holding		
			capacity and pH is normally		
			less than 5.3. Slope ranges		
			from 0 to 25 percent.		
			Annual precipitation is 41		
			to 50 inches.		
MgC	SOI	014	These Monongahela soils are		
			very deep, moderately well		
			drained soils on high stream		
			terraces. They have medium		
			textured surface layers and		
			medium to moderately fine		
			textured subsoils.		
			Monongahela soils have a		
			firm and brittle fragipan		
			layer 18 to 30 inches below		
			the surface, which has slow		
			(estimated 0.06 to 0.2		
			inches per hour)		
			permeability. They have a		
			seasonal high water table at		
			18 to 30 inches below the		
			surface. Bedrock is		
			generally at depths greater		
			than 5 feet. Natural		
			fertility is low and		
			available water capacity is		
			moderate.		
Мо	AGR	016	This soil is suited to	Mashannon silt loam	IIW
1.10		I O T O	I TITTO DOTT TO DUTIEU LO	riadinannon Sttl todll	
			cultivated crops and to hay		] "

### Nontechnical Soils Descriptions AGR (Agronomic)

and pasture. Cultivated crops can be grown continuously, but the soil needs the protection of a cover crop. Working the residue from the cover crop into the soil helps to maintain fertility and tilth. In places, crops are subject to damage from flooding. If this soil is	
continuously, but the soil needs the protection of a cover crop. Working the residue from the cover crop into the soil helps to maintain fertility and tilth. In places, crops are subject to damage from	
needs the protection of a cover crop. Working the residue from the cover crop into the soil helps to maintain fertility and tilth. In places, crops are subject to damage from	
cover crop. Working the residue from the cover crop into the soil helps to maintain fertility and tilth. In places, crops are subject to damage from	
residue from the cover crop into the soil helps to maintain fertility and tilth. In places, crops are subject to damage from	
into the soil helps to maintain fertility and tilth. In places, crops are subject to damage from	
maintain fertility and tilth. In places, crops are subject to damage from	
maintain fertility and tilth. In places, crops are subject to damage from	
tilth. In places, crops are subject to damage from	
subject to damage from	
used for pasture, the major	
management needs include	
rotational grazing and	
proper stocking rates to	
maintain desirable grasses	
and legumes, and deferment	
of grazing in the spring	
until the soil is reasonably	
firm.	
Mo GSG ML3 ML3-Moist Loams-Deep and Mashannon silt loam IIw	
very deep, well drained	
soils with high natural	
fertility. High moisture	
holding capacity and pH is	
normally greater than 5.3.	
Slope ranges from 0 to 25	
percent. Annual	
precipitation is 41 to 50	
inches	
Mo SOI 016 These Moshannon soils are	
deep, well drained, and have	
formed in recent alluvial	
sediments along major	
streams. The Moshannon	
soils have a moderate	
permeability (0.6 to 2.0	
inches per hour). They	
generally have a medium soil	
texture in the surface and	
subsoil. Bedrock is	
generally at depths greater	
than 5 feet. These soils	
are generally subject to	
occasional flooding.	
Natural fertility is high	
and available water capacity	
is high.	
Se AGR 017A This soil is suited to Senecaville silt IIw	
cultivated crops and to hay and pasture. Cultivated	

			crops can be grown		
			continuously, but the soil		
			needs the protection of a		
			cover crop. Working the		
			residue from the cover crop		
			into the soil helps to		
			maintain fertility and		
			tilth. In places crops are		
			subject to damage from		
			flooding. If this soil is		
			used for pasture, the major		
			management needs include		
			=		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes, rotational		
			grazing, and deferment of		
			grazing in the spring until		
			the soil is reasonably firm.		
Se	GSG	ML3	ML3-Moist Loams-Deep and	Senecaville silt	IIW
			very deep, well drained	loam	
			soils with high natural		
			fertility. High moisture		
			holding capacity and pH is		
			normally greater than 5.3.		
			Slope ranges from 0 to 25		
			percent. Annual		
			precipitation is 41 to 50		
			inches		
Se	SOI	017	These Senecaville soils are		
			very deep (generally greater		
			than 5 feet to bedrock),		
			moderately well drained		
			(seasonal high water table		
			at a depth of 16 to 24		
			inches) soils that have		
			formed in alluvial sediments		
			along streams and		
			drainageways. They		
			generally have a silt loam		
			surface layer and a silt		
			loam subsoil. The estimated		
			soil permeability is		
			moderate (0.6 to 2.0 inches		
			per hour). These soils have		
			a flood hazard, but may have		
			included areas of no		
			flooding. Natural fertility		
			is high and available water		
Cn	V CD	015	capacity is high. This soil is suited to	Congahayah ail+ laa	TTra
Sn	AGR	015		Sensabaugh silt loam	IIW
			cultivated crops and to hay		1

### Nontechnical Soils Descriptions AGR (Agronomic)

			and pasture. Cultivated		
			crops can be grown		
			continuously but the soil		
			needs the protection of a		
			cover crop. Working the		
			residue from the cover crop		
			into the soil helps to		
			maintain fertility and		
			tilth. In places, crops are		
			=		
			subject to damage from		
			flooding. If this soil is		
			used for pasture, the major		
			management needs include		
			rotational grazing and		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes, and deferment		
			of grazing until the soil is		
			reasonably firm.		
Sn	GSG	ML3	ML3-Moist Loams-Deep and	Sensabaugh silt loam	IIW
			very deep, well drained		
			soils with high natural		
			fertility. High moisture		
			holding capacity and pH is		
			normally greater than 5.3.		
			Slope ranges from 0 to 25		
			percent. Annual		
			precipitation is 41 to 50 inches		
0	007	015			
Sn	SOI	015	These Sensabaugh soils are		
			generally very deep (greater		
			than 5 feet to bedrock),		
			well drained soils found		
			mostly on bottomland		
			floodplains along small		
			stream. These soils have a		
			medium textured surface and		
			a medium textured gravelly		
			subsoil. The estimated soil		
			permeability is moderate to		
			moderately rapid (0.6 to 6.0		
			inches per hour).		
			Sensabaugh soils have a		
			gravel layer (15 to 45		
			percent rock fragments) at		
			depths ranging from 20 to 40		
			flood occasionally with an		
			exception of high bottoms or		
			alluvial fan areas having a		
	]		rare flood hazard. Natural		

### Nontechnical Soils Descriptions AGR (Agronomic)

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TITW
IIIw

### Nontechnical Soils Descriptions AGR (Agronomic)

	1	1	T. C	T	<del>                                     </del>
			fragipan. Natural fertility		
			is low and available water		
TT 70	7 CD	107	capacity is moderate.	TT-1-1-61	T T T -
UA	AGR	19A	This soil is generally not	Udifluvents,	IIIs
			suited to cultivated crops	gravelly	
777	000	AL3	and to hay and pasture.	TT-1-1-61	T T T -
UA	GSG	AL3	AL3—Acid Loams—Moderately	Udifluvents, gravelly	IIIs
			deep, deep, and very deep moderately well and well	graverry	
			drained with low natural		
			fertility. Moderate to high		
			soil moisture holding		
			capacity and pH is normally		
			less than 5.3. Slope ranges		
			from 0 to 25 percent.		
			Annual precipitation is 41		
			to 50 inches.		
UA	SOI	019	Udifluvents, gravelly:		
021		010	These soils are extremely		
			variable and are mostly		
			excessively drained to		
			moderately well drained		
			soils on flood plains.		
			Surface textures generally		
			range from loamy sand and		
			loam to gravelly loamly sand		
			and subsoil textures are		
			gravelly or very gravelly.		
			Soil permeability is		
			moderately rapid to rapid		
			(estimated at 2.0 to more		
			than 6.0 inches per hour).		
			Bedrock is at depths greater		
			than 4 feet. These soils		
			are subject to frequent to		
			occasaional flooding. The		
			available water capacity is		
			low to moderate.		
UB	AGR	20A	This soil is suited to	Udifluvents, loamy	IIIs
			cultivated crops and to hay		
			and pasture. Cultivated		
			crops can be grown		
			continuously but the soil		
			needs the protection of a		
			cover crop. Working the		
			residue from the cover crop		
			into the soil helps to		
			maintain fertility and		
			tilth. In places, crops are		
			subject to damage from		
			flooding. If this soil is		

	1	1		T	1
			used for pasture, the major		
			management needs include		
			rotational grazing and		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes, and deferment		
			of grazing until the soil is		
			reasonably firm.		
UB	GSG	AL3	AL3—Acid Loams—Moderately	Udifluvents, loamy	IIIs
			deep, deep, and very deep		
			moderately well and well		
			drained with low natural		
			fertility. Moderate to high		
			soil moisture holding		
			capacity and pH is normally		
			less than 5.3. Slope ranges		
			from 0 to 25 percent.		
			Annual precipitation is 41		
			to 50 inches.		
UB	SOI	020	Udifluvents, loamy: These		
			soils are extremely variable		
			and are mostly excessively		
			drained to moderately well		
			drained soils on flood		
			plains. Surface textures		
			generally range from loamy		
			sand to loam and subsoil		
			textures are loamy sand or		
			sandy loam to gravelly sandy		
			loam to gravelly loamy sand.		
			Soil permeability is		
			moderately to moderately		
			rapid (estimated at 0.6 to		
			6.0 inches per hour).		
			Bedrock is at depths greater		
			than 4 feet. These soils		
			are subject to frequent to		
			occasional flooding. The		
			available water capacity is		
110	000	NIC	low to moderate.		
UC	GSG	NS	NS-Not Suited-All other		
			soils that have a		
			combination of soil		
			properties and climate		
			limitations that make them		
			not suited for forage		
			production because adequate		
			growth for forage use plus		
			soil stabilization is		
			normally not possible		
UC	SOI	024	Udorthents, Smoothed-Urban		

				<del>,</del>	
			land complex: This is a		
			miscellaneous area of		
			disturbed soil material, and		
			impervious urban structures		
			like roads, parking lots,		
			and buildings of all kinds.		
			This map unit is too		
			variable to assign any		
			specific soil properties.		
			The miscellaneous soil area		
			ranges from dominantly clay		
			to loam soil with or without		
			rock material ranging from a		
			few gravels to a massive		
			bedrock escarpment.		
UD	AGR	046	These soils are not suited	Udorthents, strip	
00	AGN	070	to cultivated crops or hay	mine	
	1			IIITI16	
	1		and are difficult to manage		
			for pasture. They are		
			better suited to woodland or wildlife uses.		
110	COT	006			
UD	SOI	026	Udorthents, Strip Mine:		
			This is a miscellaneous area		
			of disturbed soil material		
			on an area that was surfaced		
			mined for coal. This unit		
			may include areas of natural		
			soils between strip benches		
			or around edge of unit.		
			These soils are generally		
			more than 3 feet to bedrock,		
			loamy, rock fragments range		
			from 30 to 80 percent, soil		
			permeability is too variable		
			to rate and slopes range		
			from nearly level areas on		
	1		ridgetops and benches to		
			almost vertical high walls.		
	1		These disturbed soils are		
			too variable to assign		
	1		specific soil properties.		
Ue	GSG	NS	NS-Not Suited-All other		
	1		soils that have a		
			combination of soil		
			properties and climate		
			limitations that make them		
			not suited for forage		
	1		production because adequate		
	1		growth for forage use plus		
	1		soil stabilization is		
	1		normally not possible		
			HOTWATTA HOC POSSIBLE		

Ue	SOI	025	Urbanland: This is a	
06	301	023	miscellaneous area dominated	
			by buildings, roads, parking	
			lots, and other non-soil	
			areas.	
Uf	GSG	NS	NS-Not Suited-All other	
01	000	IND	soils that have a	
			combination of soil	
			properties and climate	
			limitations that make them	
			not suited for forage	
			production because adequate	
			growth for forage use plus	
			soil stabilization is	
			normally not possible	
Uf	SOI	021	Urban land-Fluvaquents	
			complex: This unit is	
			dominated by Urban land and	
			disturbed soil material that	
			is too variable to assign	
			specific soil properties.	
			Fluvaquents: The Fluvaquent	
			soils part of this unit are	
			nearly level, poorly to	
			somewhat poorly drained	
			(seasonal high water table	
			at or near the soil surface	
			to a depth of 16 inches),	
			deep soils and mainly on	
			floodplains. They have a	
			medium surface texture and	
			medium to fine textured	
			subsoil. These soils are	
			too variable to estimate the	
			permeability. Bedrock is	
			usually at depths greater	
			than 4 feet and is generally	
			rippable with light power	
			equipment. The available	
			water capacity is moderate to high.	
Uk	GSG	NS	NS-Not Suited-All other	
0 1/2	939	11/2	soils that have a	
			combination of soil	
			properties and climate	
			limitations that make them	
			not suited for forage	
			production because adequate	
			growth for forage use plus	
			soil stabilization is	
			normally not possible	
L		1	1	

### Nontechnical Soils Descriptions AGR (Agronomic)

1	~ ~ =	0.05	m1 '	ı	
Uk	SOI	027	This Urbanland-Kanawha unit		
			is dominated by Urbanland		
			and disturbed soil material		
			that is too variable for a		
			specific soil type. The		
			natural soil exhibiting		
			specific soil properties in		
			this unit is the Kanawha		
			soil. These Kanawha soils		
			are very deep (greater than		
			6 feet to bedrock), well		
			drained soils that formed in		
			alluvial high bottom		
			sediments. They have medium		
			to moderately coarse		
			textured surface layer and		
			generally a medium textured		
			subsoil. Estimated		
			permeability is moderate		
			(0.6 to 2.0 inches per		
			hour). Natural fertility is		
			high and available water		
			capacity is high. These		
			soils have a rare flood		
			hazard. They are flooded		
			only when flood waters are		
			at their highest. Consult		
			the Army Corps of Engineers		
			for more specific		
			information on flooding		
			frequency.		
Ut	GSG	NS	NS-Not Suited-All other		
		_	soils that have a		
			combination of soil		
			properties and climate		
			limitations that make them		
			not suited for forage		
			production because adequate		
			growth for forage use plus		
			soil stabilization is		
			normally not possible		
Ut	SOI	022	Urban land-Tyler Complex:		
			This unit is dominated by		
			Urbanland and disturbed soil		
			material that is too		
			variable for a specific soil		
			type. The Tyler soil is the		
			most dominant natural soil		
			in this unit. These Tyler		
			<del>-</del>		
			soils are very deep (greater		
		L	than 60 inches to bedrock),		

# Nontechnical Soils Descriptions AGR (Agronomic)

		0.245	and somewhat poorly drained (seasonal high water table less than 15 inches of the surface). The subsoil has a fragipan that restricts the movement of water downward and limits soil permeability (estimated less than 0.2 inches per hour). This soil has medium silt loam surface textures and medium subsurface textures ranging from silt loam to clay loam, and some areas may have a sandy loam subsurface with a weak fragipan. Natural fertility is low and available water capacity is moderate.		
VaB	AGR	034B	This soil is suited to cultivated crops and to hay and pasture. The hazard of erosion, which is moderate in unprotected areas, is a management concern. If the soil is cultivated, using a conservation tillage system, farming on the contour, using a crop sequence that includes hay, and returning crop residue to the soil help to control erosion and to maintain fertility and tilth. If this soil is used for pasture, the major management needs include rotational grazing and proper stocking rates to maintain desirable grasses and legumes.	Vandalia silt loam, 3 to 8 percent slopes	IIe
VaB	GSG	FL3	FL3—Fertile Loams— Moderately deep, deep, and very deep moderately well and well drained soils with moderate natural fertility. Moderate soil moisture holding capacity and pH is normally greater then 5.3. Slope ranges from 0 to 25 percent. Annual precipitation is 41 to 50	Vandalia silt loam, 3 to 8 percent slopes	IIe

### Nontechnical Soils Descriptions AGR (Agronomic)

			inches		
VaB	SOI	028	These Vandalia soils are		
			well drained, red soils on		
			colluvial footslopes. They		
			have a moderately fine		
			textured surface and a fine		
			textured subsoil. Estimated		
			permeability is moderately		
			slow to slow (0.6 to 0.06		
			inches per hour). Vandalia		
			soils have a slip hazard,		
			especially when slopes are		
			greater than 8%. Their		
			subsoils are highly		
			susceptible to shrinking		
			when drying and swelling		
			upon wetting. Bedrock is		
			generally at depths greater		
			than 5 feet. Natural		
			fertility is moderate or high and available water		
			capacity is moderate or		
			high.		
VaC	AGR	028C	This soil is suited to	Vandalia silt loam,	IIIe
vao	11010	0200	cultivated crops and to hay	8 to 15 percent	1110
			and pasture. The hazard of	slopes	
			erosion, which is severe in		
			unprotected areas, is a		
			management concern. Using a		
			conservation tillage system,		
			growing crops in contour		
			strips, maintaining sod in		
			shallow drainageways, using		
			a crop sequence that		
			includes hay, and returning		
			crop residue to the soil		
			help to control erosion and		
			to maintain fertility and		
			tilth. If this soil is used		
			for pasture, the major		
			management needs include		
			proper stocking rates to maintain desirable grasses		
			and legumes, rotational		
			grazing, and deferment of		
			grazing, and deferment of grazing in the spring until		
			the soil is reasonably firm.		
VaC	GSG	FL3	FL3—Fertile Loams—	Vandalia silt loam,	IIIe
1 440		1110	Moderately deep, deep, and	8 to 15 percent	
			very deep moderately well	slopes	
			and well drained soils with		
	i	<u> </u>	and worl drained borro with	I	l

### Nontechnical Soils Descriptions AGR (Agronomic)

			moderate natural fertility.		
			Moderate soil moisture		
			holding capacity and pH is		
			normally greater then 5.3.		
			Slope ranges from 0 to 25		
			percent. Annual		
			precipitation is 41 to 50		
			inches		
VaC	SOI	028	These Vandalia soils are		
			well drained, red soils on		
			colluvial footslopes. They		
			have a moderately fine		
			textured surface and a fine		
			textured subsoil. Estimated		
			permeability is moderately		
			slow to slow (0.6 to 0.06		
			inches per hour). Vandalia		
			soils have a slip hazard,		
			especially when slopes are		
			greater than 8%. Their		
			subsoils are highly		
			susceptible to shrinking		
			when drying and swelling		
			upon wetting. Bedrock is		
			generally at depths greater		
			than 5 feet. Natural		
			fertility is moderate or		
			high and available water		
			capacity is moderate or		
			high.		
VaD	AGR	028D	This soil has limited	Vandalia silt loam,	IVe
			suitability for cultivated	15 to 25 percent	
			crops. It is better suited	slopes	
			to hay or pasture. The	_	
			hazard of erosion, which is		
			severe in unprotected areas,		
			is a major management		
			concern. Using a		
			conservation tillage system,		
			growing crops in contour		
			strips, maintaining sod in		
			shallow drainageways, using		
			a crop sequence that		
			includes hay, and returning		
			crop residue to the soil		
			help to control erosion and		
			to maintain fertility and		
			tilth. If this soil is used		
			for pasture, the major		
			management needs include		
			proper stocking rates to		

# Nontechnical Soils Descriptions AGR (Agronomic)

	1	1	<u> </u>	I	1
			maintain desirable grasses		
			and legumes, rotational		
			grazing, and deferment of		
			grazing in the spring until		
			the soil is reasonably firm.		
VaD	GSG	FL3	FL3-Fertile Loams	Vandalia silt loam,	IVe
			Moderately deep, deep, and	15 to 25 percent	
			very deep moderately well	slopes	
			and well drained soils with		
			moderate natural fertility.		
			Moderate soil moisture		
			holding capacity and pH is		
			normally greater then 5.3.		
			Slope ranges from 0 to 25		
			percent. Annual		
			precipitation is 41 to 50		
			inches		
VaD	SOI	028	These Vandalia soils are		
Vab	501	020	well drained, red soils on		
			colluvial footslopes. They		
			have a moderately fine		
			textured surface and a fine		
			textured subsoil. Estimated		
			permeability is moderately		
			slow to slow (0.6 to 0.06		
			inches per hour). Vandalia		
			soils have a slip hazard,		
			especially when slopes are		
			greater than 8%. Their		
			subsoils are highly		
			susceptible to shrinking		
			when drying and swelling		
			upon wetting. Bedrock is		
			generally at depths greater		
			than 5 feet. Natural		
			fertility is moderate or		
			high and available water		
			capacity is moderate or		
77 5	7.00	0000	high.	77 1 1 1 1 1 1	77'
VaE	AGR	028E	This soil is not suited to	Vandalia silt loam,	Vie
			cultivated crops or hay, but	25 to 35 percent	
			it is suited to pasture.	slopes	
			The hazard of erosion, which		
			is very severe in		
			unprotected areas, is a		
			major management concern.		
			If this soil is used for		
			pasture, overgrazing is a		
			major management concern.		
			Major pasture needs include		
			proper stocking rates to		

	ı	1	T	1	1
			maintain desirable grasses		
			and legumes, rotational		
			grazing, and deferment of		
			grazing in the spring until		
			the soil is reasonably firm.		
VaE	GSG	FH3	FH3-Fertile Hills	Vandalia silt loam,	Vie
			Moderately deep, deep, and	25 to 35 percent	
			very deep moderately well	slopes	
			drained soils with moderate		
			natural fertility. Moderate		
			soil moisture holding		
			capacity and pH is normally		
			greater than 5.3. Slope		
			ranges from 25 to 60 percent		
			or 25 to 45 percent if		
			severely eroded. Annual		
			precipitation is 41 to 50		
			inches		
VaE	SOI	028	These Vandalia soils are		
			well drained, red soils on		
			colluvial footslopes. They		
			have a moderately fine		
			textured surface and a fine		
			textured subsoil. Estimated		
			permeability is moderately		
			slow to slow (0.6 to 0.06		
			inches per hour). Vandalia		
			soils have a slip hazard,		
			especially when slopes are		
			greater than 8%. Their		
			subsoils are highly		
			susceptible to shrinking		
			when drying and swelling		
			_ = = =		
			upon wetting. Bedrock is generally at depths greater		
			than 5 feet. Natural		
			fertility is moderate or		
			high and available water		
			capacity is moderate or		
77-200	7.00	02022	high. This soil has limited	77amala 1 d. a. d. 1 d	T170
VdC3	AGR	028C3		Vandalia silty clay	IVe
			suitability for cultivated	loam, 8 to 15	
			crops. It is better suited	percent slopes,	
			to hay or pasture. The	severely eroded	
			hazard of erosion, which is		
			very severe in unprotected		
			areas, is a major management		
			concern. Using a		
			conservation tillage system,		
			growing crops in contour		
			strips, maintaining sod in		

### Nontechnical Soils Descriptions AGR (Agronomic)

			shallow drainageways, using		
			a crop sequence that		
			includes hay, and returning		
			crop residue to the soil		
			help to control erosion and		
			to maintain fertility and		
			tilth. If this soil is used		
			for pasture, the major		
			management needs include		
			_		
			proper stocking rates to		
			maintain desirable grasses		
			and legumes, rotational		
			grazing, and deferment of		
			grazing in the spring until		
			the soil is reasonably firm.		
VdC3	GSG	FL3	FL3-Fertile Loams	Vandalia silty clay	IVe
			Moderately deep, deep, and	loam, 8 to 15	
			very deep moderately well	percent slopes,	
			and well drained soils with	severely eroded	
			moderate natural fertility.		
			Moderate soil moisture		
			holding capacity and pH is		
			normally greater then 5.3.		
			Slope ranges from 0 to 25		
			percent. Annual		
			precipitation is 41 to 50		
			inches		
VdC3	SOI	029	These severely eroded		
Vacs	501	023	Vandalia soils have little		
			or no top soil exposing the		
			subsoil in some locations.		
			The Vandalia soils are well		
			drained, red soils on		
			colluvial footslopes. They		
			have a moderately fine		
			textured surface and a fine		
			textured subsoil. Estimated		
			permeability is moderately		
			slow to slow (0.6 to 0.06		
			inches per hour). Vandalia		
			soils have a slip hazard,		
			especially when slopes are		
			greater than 8%. Their		
			subsoils are highly		
			susceptible to shrinking		
			when drying and swelling		
			upon wetting. Bedrock is		
			generally at depths greater		
			than 5 feet. Natural		
			fertility is moderate or		
			high and available water		

# Nontechnical Soils Descriptions AGR (Agronomic)

	1		l conscitu is moderate or	T	1
			capacity is moderate or high.		
VdD3	AGR	028DE	This soil is not suited to	Vandalia silty clay	IIIe
Vabs	AGN	02006	cultivated crops and has	loam, 15 to 25	1116
			limited suitability for hay,	percent slopes,	
			but it is suited to pasture.	severely eroded	
			The hazard of erosion, which	Severely eroded	
			is very severe in		
			unprotected areas, is a		
			-		
			major management concern.  If this soil is used for		
			pasture, overgrazing is a		
			major management concern. Major pasture needs include		
			proper stocking rates to maintain desirable grasses		
			and legumes, rotational		
			grazing, and deferment of		
			grazing, and determent of grazing in the spring until		
			the soil is reasonably firm.		
VdD3	GSG	FL3	FL3-Fertile Loams	Vandalia silty clay	IIIe
Vabs	GSG	гцэ	Moderately deep, deep, and	loam, 15 to 25	1116
			very deep moderately well	percent slopes,	
			and well drained soils with	severely eroded	
			moderate natural fertility.	Severely eloded	
			Moderate soil moisture		
			holding capacity and pH is		
			normally greater then 5.3.		
			Slope ranges from 0 to 25		
			percent. Annual		
			precipitation is 41 to 50		
			inches		
VdD3	SOI	029	These severely eroded		
Vabs	001	023	Vandalia soils have little		
			or no top soil exposing the		
			subsoil in some locations.		
			The Vandalia soils are well		
			drained, red soils on		
			colluvial footslopes. They		
			have a moderately fine		
			textured surface and a fine		
			textured subsoil. Estimated		
			permeability is moderately		
			slow to slow (0.6 to 0.06		
			inches per hour). Vandalia		
			soils have a slip hazard,		
			especially when slopes are		
			greater than 8%. Their		
			subsoils are highly		
			susceptible to shrinking		
			when drying and swelling		
	l	1	witch drying and swelling	1	1

	1	1		I	1
			upon wetting. Bedrock is		
			generally at depths greater		
			than 5 feet. Natural		
			fertility is moderate or		
			high and available water		
			capacity is moderate or		
			high.		
VdE3	AGR	010E	These soils are not suited	Vandalia gilty glay	VIIe
VGES	AGR	OIOE		Vandalia silty clay	viie
			to cultivated crops or hay	loam, 25 to 35	
			and are difficult to manage	percent slopes	
			for pasture. The hazard of		
			erosion is very severe in		
			unprotected areas. Bare		
			areas are difficult to		
			revegetate, but they should		
			be seeded to permanent		
			cover. Mulching will help		
			protect seeded areas until		
			the plants become		
			established.		
VdE3	GSG	FH3	FH3-Fertile Hills	Wandalia silty alay	VIIe
VGES	555	rns		Vandalia silty clay	viie
			Moderately deep, deep, and	loam, 25 to 35	
			very deep moderately well	percent slopes	
			drained soils with moderate		
			natural fertility. Moderate		
			soil moisture holding		
			capacity and pH is normally		
			greater than 5.3. Slope		
			ranges from 25 to 60 percent		
			or 25 to 45 percent if		
			severely eroded. Annual		
			precipitation is 41 to 50		
			inches		
VdE3	SOI	029	These severely eroded		
۷ کیلی	551	023	Vandalia soils have little		
			or no top soil exposing the subsoil in some locations.		
			The Vandalia soils are well		
			drained, red soils on		
			colluvial footslopes. They		
			have a moderately fine		
			textured surface and a fine		
			textured subsoil. Estimated		
			permeability is moderately		
			slow to slow (0.6 to 0.06		
			inches per hour). Vandalia		
			soils have a slip hazard,		
			especially when slopes are		
			greater than 8%. Their		
			subsoils are highly		
			susceptible to shrinking		
	<u> </u>		Paracehernie co surruvina		

			when drying and swelling upon wetting. Bedrock is generally at depths greater than 5 feet. Natural fertility is moderate or high and available water capacity is moderate or high.		
VeB	AGR	030B	This soil is suited to cultivated crops and to hay and pasture. The hazard of erosion, which is moderate on unprotected areas, is a management concern, using a crop sequence that includes hay, and returning crop residue to the soil are practices that help to control erosion and pasture, the major management needs include proper stocking rates to maintain desirable grasses and legumes, rotational grazing, and deferment of grazing in the spring until the soil is reasonably firm.	Vincent silt loam, 3 to 8 percent slopes	IIe
VeB	GSG	FL3	FL3—Fertile Loams— Moderately deep, deep, and very deep moderately well and well drained soils with moderate natural fertility. Moderate soil moisture holding capacity and pH is normally greater then 5.3. Slope ranges from 0 to 25 percent. Annual precipitation is 41 to 50 inches	Vincent silt loam, 3 to 8 percent slopes	IIe
VeB	SOI	030	These Vincent soils are deep and moderately well drained (seasonal high water table within 18 to 24 inches of the surface). The Vincent soils have formed in slack water terrace sediments of the ancient Teays Lake. These soils have a medium textured surface and a fine textured subsoil causing a slow permeability (0.06 to		

			0.2 inches per hour). These silty clay subsoils have a moderate to high susceptibility to shrinking when drying and swelling when wet. Bedrock is generally at depths greater than 5 feet. Natural		
			fertility is moderate and available water capacity is high.		
VeC	AGR	030C	This soil is suited to cultivated crops and to hay and pasture. The hazard of erosion, which is severe in unprotected areas, is a management concern. Using a conservation tillage system, growing crops in contour strips, using a crop sequence that includes hay, and returning crop residue to the soil are practices that help to control erosion and to maintain fertility and tilth. If this soil is used for pasture, the major management needs include proper stocking rates to maintain desirable grasses and legumes, rotational grazing, and deferment of grazing in the spring until the soil is reasonably firm.	Vincent silt loam, 8 to 15 percent slopes	IIIe
VeC	GSG	FL3	FL3-Fertile Loams Moderately deep, deep, and very deep moderately well and well drained soils with moderate natural fertility. Moderate soil moisture holding capacity and pH is normally greater then 5.3. Slope ranges from 0 to 25 percent. Annual precipitation is 41 to 50 inches	Vincent silt loam, 8 to 15 percent slopes	IIIe
VeC	SOI	030	These Vincent soils are deep and moderately well drained (seasonal high water table within 18 to 24 inches of the surface). The Vincent		

### Nontechnical Soils Descriptions AGR (Agronomic)

			soils have formed in slack water terrace sediments of the ancient Teays Lake. These soils have a medium textured surface and a fine textured subsoil causing a slow permeability (0.06 to 0.2 inches per hour). These silty clay subsoils have a moderate to high susceptibility to shrinking when drying and swelling when wet. Bedrock is generally at depths greater than 5 feet. Natural fertility is moderate and available water capacity is high.		
VnC3	AGR	014C3	These soils have limited suitability for cultivated crops and are better suited to hay or pasture. The hazard of erosion, which is very severe in unprotected areas, is a major management concern. Using a conservation tillage system, growing crops in contour strips, using a crop sequence that includes hay, and returning crop residue to the soil help to control erosion and to maintain fertility and tilth. If the soils are used for pasture, the major management needs include proper stocking rates to maintain desirable grasses and legumes, rotational grazing, and deferment of grazing until the soil is reasonably firm.	Vincent silty clay loam, 8 to 15 percent slopes, severely eroded	IVe
VnC3	GSG	FL3	FL3—Fertile Loams— Moderately deep, deep, and very deep moderately well and well drained soils with moderate natural fertility. Moderate soil moisture holding capacity and pH is normally greater then 5.3. Slope ranges from 0 to 25	Vincent silty clay loam, 8 to 15 percent slopes, severely eroded	IVe

### Nontechnical Soils Descriptions AGR (Agronomic)

			percent. Annual precipitation is 41 to 50 inches	
VnC3	SOI	030	These Vincent soils are deep and moderately well drained (seasonal high water table within 18 to 24 inches of the surface). The Vincent soils have formed in slack water terrace sediments of the ancient Teays Lake. These soils have a medium textured surface and a fine textured subsoil causing a slow permeability (0.06 to 0.2 inches per hour). These silty clay subsoils have a moderate to high susceptibility to shrinking when drying and swelling when wet. Bedrock is generally at depths greater than 5 feet. Natural fertility is moderate and available water capacity is high.	